

**SECTION 07180**  
**TRAFFIC COATINGS**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes traffic coatings for the following applications:
  - 1. Interior and exterior, pedestrian traffic.
  - 2. Traffic marking paint.

**1.3 SUBMITTALS**

- A. Product Data: For each product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors, textures, and patterns available for each type of product indicated.
- C. Samples for Verification: For each type of traffic coating required, prepared on rigid backing and of same thickness and material indicated for the Work.
  - 1. Provide stepped samples on backing large enough to illustrate build-up of traffic coatings.

**1.4 QUALITY ASSURANCE**

- A. Installer (Applicator) Qualifications: An experienced applicator who has specialized in installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.
  - 1. Certification: Written approval or license of applicator by traffic coating manufacturer.
- B. Source Limitations: As follows:
  - 1. Use traffic coatings of a single manufacturer.
  - 2. Obtain primary traffic coating materials, including primers, from traffic coating manufacturer. Obtain secondary materials including aggregates, sheet flashings, joint sealants, and substrate repair materials of type and from source recommended by traffic coating manufacturer.

**1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels showing the following information:
  - 1. Manufacturer's brand name.
  - 2. Type of material.
  - 3. Directions for storage.
  - 4. Date of manufacture and shelf life.
  - 5. Lot or batch number.
  - 6. Mixing and application instructions.
  - 7. Color.
- B. Store materials in a clean, dry location protected from exposure to direct sunlight. In storage areas, maintain environmental conditions within range recommended in writing by manufacturer.

## 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Apply traffic coatings within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply traffic coatings to damp or wet substrates, when temperatures are below 40 deg F, when relative humidity exceeds 85 percent, or when temperatures are less than 5 deg F above dew point.
  - 1. Do not apply traffic coatings in snow, rain, fog, or mist, or when such weather conditions are imminent during the application and curing period. Apply only when frost-free conditions occur throughout the depth of the substrate.

## 1.7 WARRANTY

- A. Special Warranty: Written warranty, signed by traffic coating manufacturer agreeing to repair or replace traffic coatings that do not comply with requirements or that deteriorate during the specified warranty period. Warranty does not include deterioration or failure of traffic coating due to unusual weather phenomena, failure of prepared and treated substrate, formation of new substrate cracks exceeding 1/16 inch in width, fire, vandalism, or abuse by snowplow, maintenance equipment, and truck traffic.
  - 1. Deterioration of traffic coatings includes, but is not limited to, the following:
    - a. Adhesive or cohesive failures.
    - b. Abrasion or tearing failures.
    - c. Surface crazing or spalling.
    - d. Intrusion of water, oils, gasoline, grease, salt, deicer chemicals, or acids into deck substrate.
- B. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Physical Requirements: Provide traffic coatings complying with ASTM C 957.
- B. Material Compatibility: Provide primers; base, intermediate, and top coats; and miscellaneous materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by the manufacturer based on testing and field experience.

### 2.2 TRAFFIC COATING

- A. Products: Subject to compliance with requirements, provide one of the following;; Dex-O-Tex/Crossfield Products Corp.; General Polymers.; Neogard.; Sonneborn, Div. of ChemRex, Inc.; 3M Construction Markets.
- B. Primer: Manufacturer's standard factory-formulated primer recommended for substrate and conditions indicated.
  - 1. Material: Epoxy.
- C. Preparatory and Base Coats: Single- or multicomponent aromatic liquid urethane elastomer.
- D. Intermediate Coat: Single- or multicomponent aliphatic liquid urethane elastomer.
- E. Top Coat: Single- or multicomponent aliphatic liquid urethane elastomer.
  - 1. Color: As selected by Construction Manager from manufacturer's full range.
- F. Component Coat Thicknesses: As recommended by manufacturer for substrate and service conditions indicated, but not less than the following (measured excluding aggregate):
- G. Aggregate: Uniformly graded washed silica sand of particle sizes, shape, and minimum hardness recommended in writing by traffic coating manufacturer.

1. Spreading Rate: As recommended by manufacturer for substrate and service conditions indicated, but not less than the following:
  - a. Intermediate Coat: 8 to 10 lb/100 sq. ft..
  - b. Top Coat: 5 to 7 lb/100 sq. ft..
- H. Traffic Paint: Alkyd-resin ready mixed, complying with AASHTO M 248, Type S.
  1. Color: Yellow.

## 2.3 MISCELLANEOUS MATERIALS

- A. Joint Sealants: Multicomponent urethane sealant recommended in writing by manufacturer for substrate and joint conditions indicated and for compatibility with traffic coatings; complying with ASTM C 920, Type M, Class 25, Grade NS for sloping and vertical applications or Grade P for deck applications, and Use T where subject to traffic or Use NT elsewhere.
- B. Sheet Flashing: 50-mil- minimum, nonstaining sheet material recommended by manufacturer.
- C. Adhesive: Manufacturer's recommended contact adhesive.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, with Applicator present, for compliance with requirements and for other conditions affecting performance of traffic coatings.
  1. Verify compatibility with and suitability of substrates.
  2. Begin coating application only after minimum concrete curing and drying period recommended by traffic coating manufacturer has passed, after unsatisfactory conditions have been corrected, and after surfaces are dry.
  3. Verify that substrates are visibly dry and free of moisture. Test for moisture by plastic sheet method according to ASTM D 4263.
  4. Application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Clean and prepare substrates according to manufacturer's written recommendations to produce clean, dust-free, dry substrate for traffic coating application.
- B. Mask adjoining surfaces not receiving traffic coatings, deck drains, and other deck substrate penetrations to prevent spillage, leaking, and migration of coatings.
- C. Concrete Substrates: Mechanically abrade concrete surfaces to a uniform profile according to ASTM D 4259. Do not acid etch.
  1. Remove grease, oil, paints, and other penetrating contaminants from concrete.
  2. Remove concrete fins, ridges, and other projections.
  3. Remove laitance, glaze, efflorescence, curing compounds, concrete hardeners, form-release agents, and other incompatible materials that might affect coating adhesion.
  4. Remove remaining loose material to provide a sound surface, and clean surfaces according to ASTM D 4258.

### 3.3 TERMINATIONS AND PENETRATIONS

- A. Prepare vertical and horizontal surfaces at terminations and penetrations through traffic coatings and at expansion joints, drains, and sleeves according to ASTM C 1127 and manufacturer's written recommendations.
- B. Provide sealant cants at penetrations and at reinforced and nonreinforced deck-to-wall butt joints.
- C. Terminate edges of deck-to-deck expansion joints with preparatory base-coat strip.

- D. Install sheet flashings at deck-to-wall expansion and dynamic joints, and bond to deck and wall substrates according to manufacturer's written recommendations.

### 3.4 JOINT AND CRACK TREATMENT

- A. Prepare, treat, rout, and fill joints and cracks in substrates according to ASTM C 1127 and traffic coating manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.
  - 1. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

### 3.5 TRAFFIC COATING APPLICATION

- A. Apply traffic coating material according to ASTM C 1127 and manufacturer's written recommendations.
  - 1. Start traffic coating application in presence of manufacturer's technical representative.
  - 2. Verify that wet film thickness of each component coat complies with requirements every 100 sq. ft .
  - 3. Apply traffic coatings to prepared wall terminations and vertical surfaces to height indicated and omit aggregate on vertical surfaces.
- B. Traffic Markings: Apply traffic paint for striping and other markings with mechanical equipment to produce uniform straight edges. Apply at manufacturer's recommended rates for a 15-mil minimum wet film thickness.

### 3.6 CURING AND PROTECTING

- A. Cure traffic coatings according to manufacturer's written recommendations. Prevent contamination and damage during application and curing stages.
- B. Protect traffic coatings from damage and wear during remainder of construction period.

**END OF SECTION 07180**